

## What Is Claimed Is:

1. A noise reducing device for a pressurized fluid system comprising:  
a housing comprising an inlet end and an outlet end, said inlet end and said outlet end each comprising at least one orifice for passing said fluid therethrough, said inlet end orifice comprising an inlet face and an outlet face; said inlet end orifice operatively arranged to maintain a backpressure upstream of said inlet end orifice; and,  
a diffusing pack material disposed within said housing, said diffusing pack material maintaining contact with said outlet face of said inlet end orifice.
2. The noise reducing device of Claim 1 wherein said diffusing pack material comprises monofilament wire knitted to form a mesh.
3. The noise reducing device of Claim 2 wherein said mesh is folded upon itself to form a plurality of folded mesh layers.
4. The noise reducing device of Claim 3 wherein said folded mesh layers are compressed against said outlet face to a density of between 35 and 45 pounds per cubic foot.
5. The noise reducing device of Claim 4 wherein said monofilament wire has a diameter between 0.006 and 0.011 inches.
6. The noise reducing device of Claim 5 wherein said monofilament wire is resistant to

oxidation.

7. The noise reducing device of Claim 5 wherein said monofilament wire is heat resistant.

8. The noise reducing device of Claim 4 further comprising stiffening means disposed within said folded mesh layers; said stiffening means operatively arranged to maintain the homogeneity of said diffusing pack material density.

9. The noise reducing device of Claim 8 wherein said stiffening means comprises wire screen.

10. The noise reducing device of Claim 8 wherein said wire screen is resistant to oxidation.

11. The noise reducing device of Claim 9 wherein said wire screen is heat resistant.

12. The noise reducing device of Claim 10 wherein said wire screen comprises stainless steel.

13. A noise reducing device for diffusing a pressurized gas comprising:  
a housing comprising an inlet end and an outlet end; said inlet end and said outlet end each comprising at least one orifice for passing said gas therethrough; said orifice

of said inlet end operatively arranged to maintain a backpressure upstream of said inlet end orifice;

a diffusing pack material disposed within said housing, said diffusing pack material comprising layered, knitted wire mesh;

at last one stiffener means; said stiffener means comprising wire screen disposed within said pack material,

wherein said diffusing pack material maintains contact with said outlet end.

<sup>14</sup>  
13. The noise reducing device of Claim 12 wherein said layered, knitted wire mesh is resistant to oxidation and heat.

<sup>15</sup>  
14. The noise reducing device of Claim 12 wherein said layered, knitted wire mesh comprises stainless steel.

<sup>16</sup>  
15. The noise reducing device of Claim 12 wherein said wire screen is resistant to oxidation and heat.

<sup>17</sup>  
16. The noise reducing device of Claim 12 wherein said wire screen comprises stainless steel.

<sup>18</sup>  
17. A noise reducing device for diffusing a pressurized gas comprising:  
a housing comprising an inlet end and an outlet end; said inlet end and said outlet end each comprising at least one orifice for passing said gas therethrough; said orifice

of said inlet end operatively arranged to maintain a backpressure upstream of said inlet end orifice;

a first layer of knitted wire mesh; said first layer disposed proximate said inlet orifice;

at second wire screen layer; said wire screen layer proximate said first layer;

a third layer of knitted wire mesh;

a fourth wire screen layer; said fourth layer disposed proximate said outlet end and maintaining contact therewith.

<sup>19</sup>  
20. The noise reducing device of Claim 19 wherein said knitted wire mesh and said wire screen layers comprise stainless steel.